

BELONGSOVA, Ye.Ye.

Distribution of grain and corn diseases in Ivanovo Province.
K pozn.fauuny i flory Ivan.obl. no.1:85-89 '61. (MIRA 1987)
(Ivanovo Province--Grain--Diseases and pests)
(Ivanovo Province--Corn (Maize)--Diseases and pests)

BELONOVICH, M.

Punching machineoperated by keys. Prom.koop. no.8:26 Ag '57.
(MIRA 10:9)

1. Rukovoditel' normativnoy grupoy konstruktorskoy kontory Belorem-
soveta, Minsk.

(Textile machinery)

BELONOVICH, M. (Minsk); SAMARIN, A.; NURULLAYEV, S., rabkor (Baku);
SHKARUBO, A.; PROKURAT, R.

Letters to the editor. Sov. profsoiuzy 17 no.6:36-38 Mr '61.
(MIRA 14:3)

1. Predstatel' postoyanno-deystvuyushchego proizvodstvennogo
soveshchaniya kombinata iskusstvennoy kozhi, g. Kalinin (for
Prokurat).

(Trade unions)

AUTHORS: Lapkin, I. I., Belonovich, M. I. 1958-07/58

TITLE: Reactions of Metal Halide Alcohollates.
(Reaktsii galoind_metallialkogoliyatov)
VI. New Method for the Synthesis of Monoxytriarylmethane
(VI. Novyy spsob sintezamonoooksitriarilmetanov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958 Vol. 28, Nr 3, pp 605-608
(USSR)

ABSTRACT: Based on earlier investigations of their own (Ref 1) in which they found that the equimolecular effect of the esters of formic acid and oxalic acid on magnesium halide diarylcarbinolates leads to the formation of diarylmethyl halides, the authors began to elaborate the synthesis of monoxytriarylmethane. The method consists of a conversion of a mixture of diarylcarbinol and phenol (or naphthol) with the addition of a corresponding amount of bromoethylmagnesium to a mixture of bromomagnesium-diarylcarbinolates and phenolates. When then oxalic acid ester is added to the reaction mixture the bromomagnesium diarylcarbinolate converts to diarylmethylbromide which again forms a mono-

Card 1/3

Reactions of Metal Halide Alcoholates

19, 20, 21-6/66

VI. New Method for the Synthesis of Mon.oxylarylmethane

xytriarylmethane with the unchanged bromomagnesium phenolate (or -naphtholate) (See the reaction process mentioned). The fact that in this no products of a carbinol or phenol grouping, which according to Snorygin are characteristic for the ether group, were observed proves that the intermediate products of the reaction are not ethers. Contrary to the results of the investigations (Refs 3, 4) according to which *o*-oxytriphenylmethane is formed in the reaction of diphenylmethylbromide with sodium phenolate, isomers of oxytriarylmethane are formed in the present reaction of bromomagnesiumphenolate, as well as of bromomagnesium *o*-cresolate, with diphenylbromide (obtained, as mentioned above, in the reaction process from bromomagnesiumbenzohydroliate and oxalic acid ester); these isomers are those of *p*-oxytriphenylmethane. The ortho isomers are only formed when the γ -position is occupied, which is, for instance, the case when γ -cresol is added to the reaction. Thus two compounds which have not been described earlier are synthesized: diphenyl-(2-oxy-naphthyl-2)-methane and diphenyl-(2-ethoxy-naphthyl-1)-carbinol.

Card 2/3

Reactions of Metal Halide Alcoholates

VI. New Method for the Synthesis of Monoxytriarylmethane

79-28 3-6/61

There are 10 references, 1 of which is Soviet

ASSOCIATION: Permskiy gosudarstvennyy universitet
(Perm State University)

SUBMITTED: March 7, 1957

Card 3/3

ILLEGIBLE

BEJONOVSKAYA, G. P., DOLGOPIASK, D. A., and TINYAKOVA, L.V.

"Low Temperature polymerization initiated by di-cyanic acid, properties of the resulting polymers," a paper presented at the 4th Congress on the Chemistry and Physics of High Polymers, 27 Jan-2 Feb 67, Leningrad, Russian Academy of Sci.

B-3,04,395

BELONOVSKAYA, G.P.; DOLGOPILOSK, B.A.; TINYAKOVA, Ye.I.

Redox systems for initiating radical processes. Report no.1. Reversible systems with the participation of hydroperoxides, dienes and multivalent metal salts. Izv. AN SSSR Otd. khim. nauk no.12:1478-1486 D '56.
(MIRA 10:4)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
(Oxidation--Reduction reaction)

AUTHORS: Belonovskaya, G. P.; Dolgoplosk, B. A.; Tinyakova, Ye. I. 62-1-9/21

TITLE: Oxidation-Reduction Systems for the Initiation of Radical Processes. Part 2. Initiation of Polymerization in Aqueous Emulsions under the effect of Reversible Systems at a Temperature of below 0° and Study of the Microstructure of the Polymeric Chain (Okislitel'no-vosstanovitel'nyye sistemy dlya initsirovaniya radikal'nykh protsessov. Soobshcheniye 2. Initsirovaniye polimerizatsii v vodnykh emul'siyakh pod vliyaniyem obratimnykh sistem pri temperature nizhe 0° i izucheniye mikrostruktury polimernoy tsepi).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1957, No. 1, pp. 65-69 (U.S.S.R.)

ABSTRACT: The purpose of this report is to study the applicability of an oxidation-reduction system, consisting of dienols, hydrogen peroxide of isopropylbenzene and very small amount of ferric salt or cupric salt, for the initiation of polymerization in an aqueous emulsion at very low temperatures for the purpose of establishing the relation between the

Card 1/3

62-1-9/21

Oxidation-Reduction Systems for the Initiation of Radical Processes.
Part 2. Initiation of Polymerization in Aqueous Emulsions under the
effect of Reversible Systems at a Temperature of below 0° and Study
of the Microstructure of the Polymeric Chain

polymerization temperature and the microstructure of the polymeric
chain. It was found that the application of such system is perfectly
possible for polymerization initiation at temperatures ranging down
to -47°. It is evident from results obtained that the system con-
taining dioxymaleic acid and ferric salt is the most active one but
only in the presence of hydrogen peroxide of r-tertiary-butyl-isopropyl
benzene.

The authors obtained data which established a close relation between the
polymerization temperature of Divinyl and isoprene and the microstructure
of the polymeric chain. A reduction in polymerization temperature
displaces the equilibrium toward a more stable trans-form. Divinyl
polymers at a reduced polymerization temperature show a positive
tendency toward crystallization.

Card 2/3

Tables, graphs, illustrations. There are 11 references, of which
2 are Slavic.

62-1-9/21

Oxidation-Reduction Systems for the Initiation of Radical Processes.
Part 2. Initiation of Polymerization in Aqueous Emulsions under the
effect of Reversible Systems at a Temperature of below 0° and Study
of the Microstructure of the Polymeric Chain

ASSOCIATION: Academy of Sciences of the USSR, Institute of High Molecular
Compounds

PRESENTED BY:

SUBMITTED: December 13, 1955

AVAILABLE: Library of Congress

Card 3/3

BELONOVSKAYA, G. P.

AUTHORS: Belonovskaya, G. P., Dolgoplosk, I. A., Vasyutina, Zh. D., Kalikova, L. I. 62-1-5/29

TITLE: Redox-Systems for the Starting of Radical Processes (Oksiditel'no-vozstanovitel'nyye sistemy dlya nachala radikal'nogo protsessa) and On the Mechanism of Behaviour of a System Containing Ethylene Diamine and Hydroperoxide (Obozrazheniye k mekhanizmu deystviya sistemy, soderzhashchey etilen diamin i gidroperokisi).

PERIODICAL: Izvestiya AN SSSR Otdeleniya khimicheskikh nauk, 1958, Nr 1, pp. 24-34 (USSR)

ABSTRACT: Those oxidation-reduction systems consisting of polyethylene-polyamines, hydrogenperoxidase, and salts of iron are very important among the numerous redox systems used at present for the starting of the emulsion reaction of polymerization. In this paper - as in some former ones - the authors emphasize that this system is effective only in presence of salts of iron, and that their rôle consists of the formation of free radicals. The authors investigate 2 schemes of the reaction of polyamine systems (references 6,7 and references 8,9). The first presupposes the effect of the concentration of amine and the salts of iron. In the case of the second, however, it

Card 1/2

Redox-Systems for the Strengthening of Radical Processes. - 1986-1-5/23
 On the Mechanism of Behaviour of a System Containing Ethylene Diamine and Hydroperoxide

was assumed that the introduction of polymerization is connected with the immediate interaction between amine and hydrogen peroxide in the presence of bivalent iron. The kinetics of the interaction between ethylene diamine and the hydrogen peroxide of isopropylene-benzene was investigated in the aqueous- and hydrocarbon medium in the presence of various quantities of iron salts. Here the lacking of a direct binding between the kinetics of the decomposition of the hydrogen peroxide and the kinetics of polymerization was found. Furthermore it was found that the introduction of the polymerization is not immediately connected with ox.-red. reactions. The entire process occurs only after the complete decomposition of hydrogen peroxide. Finally also the structure of the products produced by the decomposition of hydrogen peroxide was investigated in det. 11. There are 12 figures, 3 tables, and 13 references, 2 of which are Slavic.

Card 2/2

ASSOCIATION: Institute of Chemical Physics, AS USSR (Institut
 Submitted: November 12, 1986

1. Ethylene diamine-Oxidation-reduction reactions
2. Hydroperoxide-Oxidation-reduction reactions
3. Polymerization

AUTHORS: Dolgoplosk, B. A., Ierusalimskiy, B. L., Milovskaya, Ye. B.,
Belonovskaya, G. F. SOV/20 126-4-06/61

TITLE: The Cell Effect and the Thermal Stability of Polymers
(Effekt kletki i termostabil'nost' polimerov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 4, pp. 785-785
(USSR)

ABSTRACT: A great number of organic substances are known whose thermal stability is much weaker in the solution or melt than in the solid state. The most typical examples are compounds with unstable bindings (peroxides, azo- and diazo-compounds) which begin to decompose only at their melting temperature. At the same time they decompose much quicker in solutions and at a much lower temperature (Table 1). According to the authors' opinion the following experimental results render it possible to relate the mentioned phenomenon to a rapid increase of the cell effect (= reaction of the primary recombination of the free radicals) in viscous and solid media. As was proved already earlier the thermal decomposition of methyl-phenyl triazene in a medium of hydrocarbons leads

Card 1/4

The Cell Effect and the Thermal Stability of Polymers

SOV/20-120-4-26/67

to the formation of methane and methyl-aniline (Ref 5). It is most probable that the latter forms as a result of recombination of the radicals which are released at the moment of decomposition in the "cell". The authors proved that in the case of decomposition of methyl-phenyl triazene in systems of hydrocarbon polymers the methane yield decreases with increasing viscosity of the medium. At the same time it was proved that the yield of the product of primary recombination namely of the methylaniline increases (Table 2). The above mentioned data give evidence as to a considerable influence of the viscosity of the medium on the efficiency of interaction in the cell. The results obtained render possible the discussion of a possible influence of the state of aggregation on the thermal stability of those substances that contain unstable bindings (Table 1) as well as of the polymers that have a high fusing temperature. The difference in behavior of such compounds in solid state and in solution (or melt) may be explained by means of the particularly important part played by the cell effect in solid state. Polyparaxylylene decomposes only after having been melted (at 425°). In the solution this is the case already at 302° . These polymers

Card 2/4

The Cell Effect and the Thermal Stability of Polymers

are apparently "overheated"; only after surpassing the temperature of vitrification they undergo a destructive decomposition when the viscosity of the system decreases considerably. Hence we may conclude that the thermal stability of polymers with a high melting temperature displays abrupt jumps in connection with the transition from solid state into an elastic one and from the elastic state into the solution. From the above mentioned it may be concluded that the task of increasing the thermal stability of carbon atom chain polymers in vitrified state consists above all in increasing their melting temperature. A high thermal stability of rubber-like polymers can apparently only be reached by the stability of the skeleton bindings of the main chain. There are 3 tables and 8 references, 2 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy Akademii nauk USSR
(Institute of High-Molecular Compounds AS USSR)

PRESENTED: January 6, 1958, by V. A. Kargin, Member, Academy of Sciences USSR
Card 3/4

The Cell Effect and the Thermal Stability of Polymers

SOV/20-120-4-20-6

SUBMITTED: January 4, 1958

1. Polymers--Thermodynamic properties
2. Polymers--Decomposition
3. Polymers--Molecular structure
4. Free radical--Chemical effects

Card 4/4

5 (3)
 AUTHORS: Belonovskaya, G. P., Vasyutina, Zh. D., SOV/79-79-3-43/61
 Dolgoplosk, B. A.

TITLE: On the Inhibiting Influence of Some Polycyclic Aromatic Compounds Upon the Polymerization Process (Ob ingibiruyushchem vliyaniy nekotorykh politsiklicheskikh aromaticheskikh soyedineniy na protsesse polimerizatsii)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 955-958 (USSR)

ABSTRACT: The capability of polycyclic hydrocarbons to react with free radicals has been investigated in many papers (Refs 1-7). The present report describes data concerning the capability of some polycyclic compounds to react with the radical CH_3 . . . which forms on the thermal decay of methylphenyltriazine, as well as the influence exerted by the same compounds upon the thermal polymerization process of styrene at 100° . Methylphenyltriazine was used as a source of the free methyl radicals. It decays thermally according to the scheme

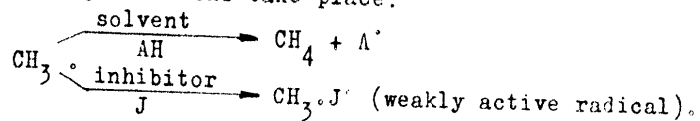
$$\text{C}_6\text{H}_5\text{-N=N-NHCH}_3 \longrightarrow \text{C}_6\text{H}_5\text{NH}\cdot + \text{N}_2 + \text{CH}_3\cdot$$
 The methyl radical cleaves off the hydrogen from the solvent and forms methane, the yield of which, in the case of the saturated hydrocarbons

Card 1/3

On the Inhibiting Influence of Some Polycyclic
Aromatic Compounds Upon the Polymerization Process

SOV/79-29-3-43/61

amounts to 55-60 % (calculated on the theoretical yield),
(Ref 8). In the case of the cleavage of methylphenyltriazine in
the presence of quinones and various aromatic compounds, their
methylation occurs through the radical, which fact causes a
corresponding diminution of methane. In this case, the follow-
ing concurring reactions take place:



With one and the same solvent the amount of methane is capable
of characterizing the activity of one or the other compound in
relation to the methyl radical. The decay of methylphenyl-
triazine took place at 110° in the solution of a dry, purified
gasoline, which was distilled over in the range of 90-110°. The data obtained are shown in the table. They thus character-
ize the relative activity of various polycyclic aromatic
hydrocarbons to the methyl radical. Among the hydrocarbons
investigated, dibenzpyrene proved to be the most efficient

On the Inhibiting Influence of Some Polycyclic
Aromatic Compounds Upon the Polymerization Process

SOV/79-29-3-43/61

inhibitor in the thermal polymerization process of styrene.
There are 1 figure, 1 table, and 9 references, 2 of which
are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy Akademii nauk SSSR
(Institute of High-molecular Compounds of the Academy of
Sciences, USSR)

SUBMITTED: January 16, 1958

Card 3/3

66418

~~5-37~~ 5.3831

AUTHORS: Belonovskaya, G. P., Bresler, S. Ye., SOV/20-128-6-22/63
Dolgoplosk, B. A., Corresponding Member
AS USSR, Os'minskaya, A. T., Popov, A. G.

TITLE: Inhibition of a Chain Decomposition of Polymers by Destruction
of the Structure Homogeneity by Means of the Copolymerization
Method

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1179 - 1181
(USSR)

ABSTRACT: If a small quantity of a more readily polymerizable monomer B
is added to a monomer A, a polymerization inhibition effect is
produced (Ref 1). This effect is caused by the low reactivity
of the radical $\sim B^{\cdot}$ at the end of a growing chain with respect
to the principal monomer. The introduction of a certain quanti-
ty of a less reactive monomer into the monomer B is of no im-
portance to polymerization kinetics. The basic rules, particular
to the process of radical polymerization, may appear in the
thermal chain decomposition of polymers. It was to be expected
that in this kind of destruction the process would be inhibited
by introduction of small quantities of components of a different
activity into the homopolymer chain. In the case of such a

Card 1/3

or even 1.5% of

Inhibition of a Chain Decomposition of Polymers by
Destruction of the Structure Homogeneity by Means of
the Copolymerization Method

66418

SOV/20-128-6-22/63

the links of methacrylic acid into the polymethyl-methacrylate chain influences the destruction kinetics of the polymer (Curves 1,2). At a methacrylic-acid content of 15% in the copolymer, the destruction rate is only about 1/8 of that of the homopolymer (Fig 1: 1,3). A similar picture is delivered by the methyl-methacrylate copolymer with methyl-methacrylic amide (Fig 1: 5). The increase in thermal stability of the polymers is evidently only connected with the transition from the homopolymer to the copolymer. The addition of vinyl derivatives (Ref 2) for this purpose represents a special case of the above-mentioned phenomenon. There are 3 figures and 4 Soviet references.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR
(Institute of High-molecular Compounds of the Academy of
Sciences, USSR)

SUBMITTED: July 8, 1959

Card 3/3

66483

5(2,3) 5.3831

SOV/20-12-1-29/64

AUTHORS: Belonovskaya, G. P., Dolgoplosk, B. A., Corresponding Member,
AS USSR, Chernova, Zh. D.

TITLE: Investigation of the Reaction of the Oxidation of $TiCl_3$ With
Hydroperoxide of Isopropylbenzene in Aqueous and Hydrocarbon
Media

PERIODICAL: Doklady Akademii nauk SSSR. 1959. Vol 129, Nr 1,
pp 105 - 108 (USSR)

ABSTRACT: Oxidating chain processes are expected to take place in poly-
mers containing Ti^{3+} because of its oxidation to Ti^{4+} ; above
all, destruction or construction of polymers may be expected.
Hence it was attempted to investigate this oxidation and its
occurrence without secondary processes which deteriorate the
structure and properties of the polymers. The oxidation mention-
ed in the title was investigated in aqueous solutions and
hydrocarbons. Figure 1 shows the interaction of $TiCl_3$ with the
above hydroperoxide in aqueous and aqueous-alcoholic solution
with and without nitrile of acrylic acid at 20° and 0° , respecti-
vely. The ratio of $TiCl_3$ used per 1 mol hydroperoxide is 1:2;
in the presence of the acceptor of free radicals (nitrile of

Card 1/3

66483

Investigation of the Reaction of the Oxidation of SOV/20-10-1-24/64
 TiCl_3 With Hydroperoxide of Isopropylbenzene in Aqueous and Hydrocarbon Media

acrylic acid, methylmethacrylate) it is almost 1:1. Reaction takes place also at low temperatures and does not stop until -70° . If the acceptor mentioned is absent, 15-17% of methane (with regard to hydroperoxide) is liberated at 20° in the case of 1% hydroperoxide solution. With a ratio of TiCl_3 :hydroperoxide = 2:1 at 20° the main products of hydroperoxide decomposition are: dimethylphenylcarbinol (65-75% yield) and acetophenone (15-17%). If it is allowed to stand, TiO_2 is quantitatively separated from aqueous solution. On account of the above data the authors assume that the processes (1)-(4) take place in aqueous solutions (see Diagram). The reactions (2) and (3) are repressed in the presence of the above acceptor. The reaction mentioned in the title can be used for introducing polymerization in emulsion media at temperatures to -50° . Moreover, it can be used for homogeneous polymerization of partially water-soluble monomers (nitrile of acrylic acid, methylmethacrylate) at low temperatures. These substances react in a hydrocarbon medium (benzene with 8-10% absolute ethanol) in a ratio close to 1:1. Since reaction (2) seems to be specific for radicals of the type RO^\cdot (HO^\cdot) only, it cannot be used in hydrocarbon media for the introduction of processes with great chain length

Card 2/3

4

66483

Investigation of the Reaction of the Oxidation of TiCl_3 With Hydroperoxide of Isopropylbenzene in Aqueous and Hydrocarbon Media

The system TiCl_3 -hydroperoxide is very effective for processes with short chains (e.g. construction of rubber). Table 1 shows the inhibition of polybutadiene and polyisoprene construction by benzoquinone, nitrobenzene, dinitrobenzene, and neozene-5 (phenyl- β -naphthylamine). The above results show that the oxidation of Ti^{3+} salts takes place by means of hydroperoxide involved in chain radical reactions. The latter can introduce the polymerization process in aqueous media. They lead to rubber construction in hydrocarbon media. These processes can be repressed by specific inhibitors; at the same time, secondary radical processes can be eliminated. There are 1 figure, 2 tables, and 5 Soviet references.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR
(Institute of High-molecular Compounds of the Academy of Sciences, USSR)

SUBMITTED: July 10, 1959

Card 3/3

3/19/62/55A/100/10
B-6/B-6

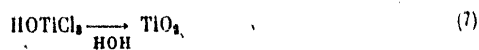
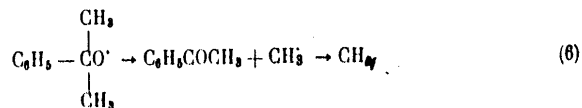
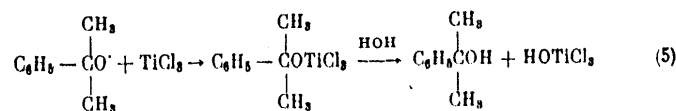
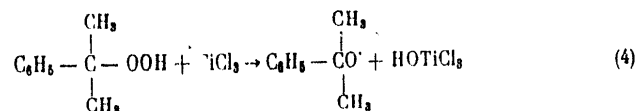
AUTHORS: Belonovskaya, G. P., Dolgoplosk, B. A., Chernova, Zh. I.
TITLE: Study of the oxidation of $TiCl_3$ in hydrocarbon and aqueous media
PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 2, 1961, 161 - 166

TEXT: A. N. Nesmeyanov et al. (Dokl. AN SSSR, 22, 83, 1954) has shown that the oxidation of $Ti(OR)_3$ by oxygen proceeds via the free radical $(OR)_3TiO\cdot$. The oxidation reactions of $TiCl_3$ by oxygen and hydroperoxides were to be studied in connection with the polymerization with Ziegler catalysts. Colloids, 1 - 2 and 8 - 10% solutions of $TiCl_3$ in absolute C_2H_5OH with benzene, acidified with glacial acetic acid were rapidly oxidized by oxygen at 18 - 20°C. In solutions of cis-1,4-polyisoprene (I) and cis-1,4-polybutadiene (II), this caused deep destruction of polymers and a decrease in intrinsic viscosity for I from 2.03 to 1.3, and for II from 3.92 to 2.7. $TiCl_4 \cdot 4C_6H_5NH_2$ was separated during the oxidation of Card. 4/4

Study of the oxidation of TiCl_3 ...

S/190/62/004/002/001/021
B110/B101

and 15 - 17% acetophenone are formed at a TiCl_3 : hydroperoxide ratio of 2 : 1 in the absence of acceptors. The reactions:



Card 3/4

Study of the oxidation of $TiCl_3$...

S/190/62/004/002/001/021
B110/B101

are assumed to take place under the action of $TiCl_3$ with hydroperoxide, (5) and (6) do not occur in the presence of acceptors. There are 2 figures, 5 tables, and 10 references: 6 Soviet and 4 non-Soviet. The reference to the English-language publication reads as follows: M. S. Kharash, A. Fono, W. Nudenberg, J. Organ. Chem., 16, 113, 1951.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-molecular Compounds AS USSR)

SUBMITTED: November 24, 1960

Card 4/4

REF ID: A66777
CLASSIFICATION: CONFIDENTIAL
DATE: 11/11/11

AUTHOR: HANSEN, G. P.; GILBERT, R. L.; GILBERT, L. A.

TITLE: Emulsion polymerization of vinyl acetate at low temperatures

SOURCE: Zhurnal Prikladnoi Khimii, v. 27, no. 11, 1954, 2476-2477

TOPIC TAGS: emulsion polymerization, vinyl acetate, polyvinylacetate, low temperature polymerization, polymer viscosity

ABSTRACT: The authors developed a new technique for the preparation of polyvinylacetate in a system of nitrogen. A stable emulsion being formed by combining 0.5% OP-10 emulsifier (a condensation product of octylene oxide with alkyl alcohol), 0.1% ascorbic acid, and 0.5% isopropylbenzene peroxide with monomers in the amount of vinyl acetate, the latter being dissolved in a 50 or 55% water-glycerol mixture in a 3:1 ratio. The emulsion was cooled to -25 or -35°C in a thermostat, after which 15 or 60 mol. % ferrous ammonium sulfate were added with stirring. The polymers, separated by adding warm saturated NaCl solution, show that lower polymerization temperatures increase the viscosity of polyvinyl acetate and of polyvinyl alcohol and reduce their α -glycol and acetate group content. The course of the polymerization under various conditions is shown in Fig. 1 of the Enclosure.

Card 1/4

1-19635-63

ACCESSION NR. AP600086

2

"The polarographic determination of the β -glucuronide was carried out by O. B. Jr. in the
 Public-Health Service Laboratory, Physiological Laboratory of the IVE, CHICAGO, ILL.
 Date: 1 table and 2 figures.

ASSOCIATION: NONE

SUBMITTED: UNKNOWN ENCL: 02 SUB CODE: CC, NT

NO REF SOV: 003 OTHER: 003

Card 2/4

1 1963-25

ACCESSION NR. AP6000518

ENCLOSURE 01

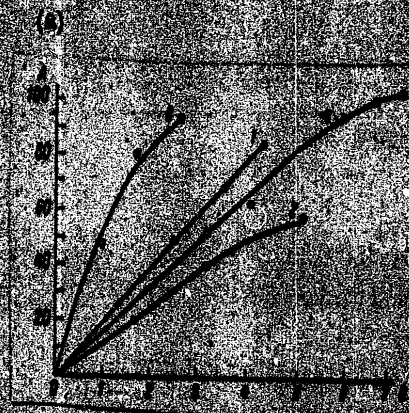


Fig. 1. Emulsion polymerization of vinyl acetate at temperatures of (a) 0°C and above, (b) less than 0°C. Ordinate - degree of conversion in %, abscissa - time in hours.

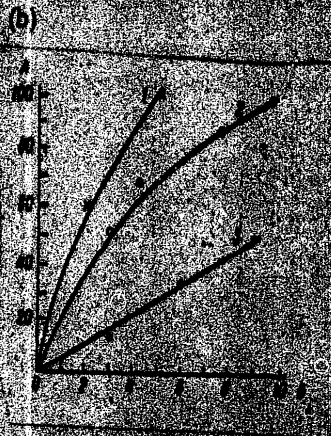
Temperature in °C and concentration of K₂S₂O₈ and in mol %: (a) 1 - 0 and 10, 2 - 5 and 5, 3 - 20 and 0.75, 4 - 50 and 0.35; (b) 1 - -25 and 40, 2 - -25 and 10, 3 - -25 and 50.

Card 3/4

L 19635-45

ACCESSION NR. AB0000000

ENCLOSURE 00



Card 4/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

ELONOVSKIY, A.

Installation and operation of the BMT-24 relay regulator. No 4.

Tankist, No 12, 1948.

BELONO SMY, A.

A good textbook for a course in electrical engineering . No 12.

Tankist, No 12, 1948.

PHASE I BOOK EXPLOITATION

133

Belonovskiy, Anatoliy Sergeyevich, and Menskiy, Boris Mikhaylovich

Avtomatizirovannyi privod s elektromashinnym usilitelem (Automated Drive With an Amplidyne) Moscow, Voen. izd-vo Min-vo obor. SSSR, 1956. 130 p.
No. of copies printed not given.

Ed.: Shirayev, N. P., Engineer-Captain; Tech. Ed.: Sleptsova, Ye. N.

PURPOSE: The book is intended for persons familiar with the basic laws of electrical engineering. It can, therefore, be utilized by a wide circle of readers.

COVERAGE: The book describes the arrangement, basic properties and principles of operation of low-capacity automated electric drives with an amplidyne. These drives have found wide application in industry and in the military equipment of the Soviet armed forces (p. 3). A description of 13 types of Soviet-produced amplidynes with specifications and a detailed drawing of an EMU5PM type amplidyne is given (pp. 53-60). A polarized relay of the RP-5 type is described and illustrated (pp. 79-82). No personalities are mentioned and only one Soviet reference is given in a footnote (p. 131).

Card 1/3

Automated Drive With an Amplidyne

133

TABLE OF CONTENTS:

Introduction	3
I. Some data on the electric drive	5
Properties and control of a d-c motor with independent excitation	5
The motor-generator system	15
Basic properties and components of an automated electric drive	20
A motor-generator system with vibration control	26
II. The Amplidyne	31
Operating principle	32
External characteristics	39
Amplification factor	42
Advantageous features	45
Defects	48
Special design features	51
Soviet-produced amplidynes	53
Card 2/3	

Automated Drive With an Amplidyne	133
III. A Motor-generator System with a Direct-control Amplidyne	60
Control of the system	61
Voltage feedback	65
Speed feedback	72
The preliminary amplifier	77
The polarized relay	79
A motor-generator system with amplidyne and preliminary amplifier	82
Alternating feedback	89
The speed characteristics of a system	92
Maintaining system stability	94
IV. Amplidyne Follow-up System	98
Interrupted control follow-up system	100
Selsyns and their application in remote angle measurement	104
The phase-sensitive rectifier	112
Continuous control follow-up system	119
System with approximate and precision follow-up selsyns	125
AVAILABLE: Library of Congress (TK4058 .B43)	
Card 3/3	

JJP/bmd
30 July 58

BELONOVSKIY, A.S., kand.tekhn.nauk, dotsent (Moskva); ZDROK, A.G.,
kand.tekhn.nauk, dotsent (Moskva)

Second Conference on the Electrification of Transportation.
Elektrichestvo no.5:85-86 My '61. (MIRA 14:9)
(Railroads--Electrification)

BELONozHKA, N.M.

Treatment of terminal conditions by intra-arterial blood transfusion.
Akt.vop.perel.krovi no.4:118-121 '55. (MIRA 13:1)

1. Travmatologicheskoye otdeleniye gorodskoy bol'nity g. Shakty.
(SHOCK) (BLOOD--TRANSFUSION)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

AGEYEV, V.I.; BELONozHKIN, A.I., redaktor; SPIRIDONOV, N.F., tekhnicheskii
redaktor

[Late fall planting of sunflowers] Podzimnii posev podsolnechnika.
[Kuibyshev] Kuibyshevskoe kn-vo, 1954. 23 p. (MLRA 9:8)
(Sunflowers)

BEZZUBIK, K.V., sostavitel'; BELONozHKIN, A.I., sostavitel'; KHROLIKOV,
A.G., red.; SHCHERBAKOV, A.I., tekhn.red.

[On collective livestock farms; practices of "Put' k kommunizmu"
stockbreeders in Kinel' District] Na kolkhoznykh fermakh; iz
opyta raboty zhivotnovodov kolkhoza "Put' k kommunizmu", Kinel'-
skogo raiona. Kuibyshevskoe knizhnoe izd-vo, 1957. 51 p.
(MIRA 12:1)

(Kinel District--Stock and stockbreeding)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

BELONozHKIN, I.A., fel'dsher (g.Boyarka Kiyevskoy oblasti)

Role of records and reports in feldsher work. Fel'd. i akush. 27
no.3:44-45 Mr '62. (MIRA 15:4)

(MEDICAL RECORDS)

AVDEYEV, Yu.G., inzh.; BELONOVZHKO, A.F., inzh.

Determination of the optimum diameter of boreholes in
drilling with rock drills. Shakht. stroi. 7 no.6:17-19
Je '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov (for Avdeyev). 2. Trest Gornetsshakhtostroy (for
Belonovzhko).

(Rock drills)

BELONozHKO, A.M.

Development of the production of chemicals in the coke and coal chemicals plants of the Dnieper Economic Region. Koks i khim. no.1:30-33 '64. (MIRA 17:2)

1. Pridneprovskiy sovet narodnogo khozyaystva.

BELONNOZHKO, F.I.

USSR.

Preserved squash as raw material for the production of ascorbic acid. B. F. Belonnozhko, F. I. Belonnozhko, O. I. Belonnozhko, and A. M. Belonnozhko. *Voprosy Pitanii*, Moscow, (Institute of Nutrition, Acad. Sci. USSR), 1963, 10: 108-111 (1963). — The content of raw squash was 10.8-17.7 mg. % of the squash was ground into a pulp and part cut into pieces approx. 3 X 3 cm. The pulp was placed in glass jars (1) mixed with 5% NaCl, (2) with 5% NaCl, and (3) without NaCl. Into another set of glass jars intermittent layers of pulp and pieces were placed with the addition of 5% NaCl. The jars were covered with paper and tied with twine. To simulate practical storage conditions no sterility was observed. The squash-filled jars were kept in the lab. at 14° during January, at 6-12° during February, at 9-13° in March, at 11.5-17.5° in April, at 17-18° in May. Several jars of each type of squash slings were prepd. so that analysis could be made at given time intervals without the need of resealing and reopening the jars. The squash variety known as "vitamin" was used, which normally contained 9.8% of sugar, a factor favoring the formation of slings of high quality. In the early stage of sling fermentation lactic acid accumulated rapidly, reducing the original pH from 6.0 to 4.4-4.6, thereby serving as an important factor in sling conservation. The ratio of lactic to acetic acid was 8:1, indicating the high quality of the slings. The latter remained a golden-yellow color, had a pleasant taste, and approximating sour fermentation taste. After 2-3 months, the slings lost 3-5.5% of its original weight. The best-quality squash slings was obtained with the pulp. After 3 months of preservation the unsalted pulp showed 14.1% gain in carotene on the original wt. basis. The salted pulp had a 18.4% carotene gain, the 5% NaCl-salted pulp yielding higher results. At the end of 4 months only a slight loss in carotene occurred in the unsalted pulp, while a 19.8% loss occurred in the 5% NaCl pulp. In the slings prepared of intermittent layers of pulp and pieces of squash, the 5% NaCl at the end of 4-5 months there was a 14.1% gain in carotene.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

BELONOVHKO, F. I.,

"A New Raw Material, and Ways of Processing It into Carotene Preparations." (Dissertation for Degree of Candidate of Technical Sciences) Moscow Technological Inst of Food Industry, Moscow, 1955

SO: M-1036 28 Mar 56

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400009-6

BELOBOZHKO, G. A., Kiev

"Unithiol in the Therapy of Intoxications by Mercury," a paper presented at the Fifth Conference of the Ukrainian Society of Physiologists, Biochemists, and Pharmacologists, 20 May - 2 June 1960, Kharkov.

BELOMOZHIKO, G.A.; MINENKO, Aleksey Yefremovich; BRECHKO, G.T.;
DANILENKO, A.I.; LAVRIK, V.Ya.; LEVCHUK, G.A.; LUGANSKIY, N.I.;
MOROUNOV, I.N.; LOKEMATYY, Ye.L. tekhnredaktor

[Organisation of medical services in connection with widespread
contamination and injury of the population] Organizatsiia
meditsinskogo obespecheniia pri massovykh porazheniiakh naseleniia.
Pod red. A.E. Minenko. Kiev, Gos. med. izd-vo USSR, 1957.
494 p.

(ATOMIC MEDICINE)

(MLRA 10:5)

BELOVOZHKO, V. I.

"Use of the New Antidote Unithiol in Intoxications by Arsenic and Mercury Compounds," by Candidates of Medical Sciences G. A. Belonozhko, V. I. Vitte-Drozdevskaya, Ye. I. Kefeli, and B. M. Shchepotin, Chair of Therapy, Sanitary-Hygiene Faculty, Kiev Medical Institute and Laboratory of Experimental Therapy, Ukrainian Scientific-Research Sanitary-Chemical Institute, Vrachebnoye Delo, No 1, Jan 57, p 87 ✓

The article reports results of the use of unithiol in the therapy of intoxications by arsenic and mercury compounds. Most of the patients were in serious condition when received at the clinic. Treatment with unithiol began at various times following intoxications. In addition to unithiol, other means of therapy were administered, i.e., washing of the gastrointestinal tract, subcutaneous injections of 5 percent solutions of glucose and physiological solution, and cardiac stimulants. All the patients recovered and were released in a satisfactory condition. Unithiol produced no side effects. On the basis of the results obtained, it was concluded that unithiol was an effective therapeutic agent in intoxications caused by arsenic and mercury compounds. (U)

BELONozhko, G.A. [Belonozhko, H.O.]; LUCHAK, YulA.

Ballistocardiographic and electrocardiographic investigations
during acute radiation sickness. Fiziol. zhur. [ukr.] 9
no.4:547-550 J1-Ag '63. (MIRA 12:10)

1. Laboratoriya shtamiv i modelyuvaniya puklini Institutu
eksperimental'noi i klinichnoi onkologii Ministerstva
okhoroni zdorov'ya UKSR, Kiiv.

EWI 9-6? EWT(m) WW/JW/JWD

ACC NR: AP6029970

(A)

SOURCE CODE: UR/0413/66/000/015/0162/0162

INVENTOR: Okhil'kov, G. T.; Sergeyev, B. B.; Belonozhko, G. G.

ORG: none

TITLE: Ignition composition for bridgeless electroigniters. Class 78, ^{Ab.}184677

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 162

TOPIC TAGS: primer, explosive, detonator, ignition

ABSTRACT: An Author Certificate has been issued for an ignition composition for electric igniters without bridge circuits. To secure safe operation of the electric igniters in the presence of eddy currents and increase the stability of the electric resistance, the composition contains components in the following concentrations: potassium chlorate, 49—51%; lead rhodanide, 34.7—36.7%; crystalline graphite, 15—13%; and high viscosity colloxyline, 0.2—0.4%. [W.A. SP] [PV]

SUB CODE: 1921/ SUBM DATE: 18Jan65/

BELONozhko, I.A., inzh.

Automatic machine for steel wire coiling for metal brushes.
Sudostroenie 28 no.7:68-69 J1 '62. (MIRA 15:8)
(Metalworking machinery)

BELONozhko Ivan Fedorovich; SHUPOV, Leonid Petrovich;
MAKHUSHINA, Ye. A., ved. red.

[Filtration equipment operator] Fil'troval'shchik. Moskva, Nedra, 1965. 75 p. (MIKA 18:8)

SHUPOV, L.P.; ~~BELONozhko, I.F.~~; GISHCHUK, B.V.; KONONOVA, A.P.; MASLENNIKOVA, K.P.; SVERDEL', E.I.; ARTEMOVA, A.A.

Selection of a synthetic fiber filter cloth for thin iron ore concentrators. Gor.zhur. no.10:60-62 0 '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy i proyektorny institut po obogashcheniyu i aglomeratsii rud chernykh ~~metallov~~, Krivoy Rog (for Shupov, Belonozhko, Gishchuk). 2. Ukrainskiy nauchno-issledovatel'skiy institut po pererabotke iskusstvennogo i sinteticheskogo volokna (for Kononova, Maslennikova). 3. Yuzhnyy gorno-obogatitel'nyy kombinat, Krivoy Rog (for Sverdel', Artemova).

BELOZHIKO, Ivan Fedorovich; FEDOTOV, Yuriy Sergeyevich

[Lumping; machinery operator] Mashinist nasosov. Moskva, Izd-vo "Mashin," 1964. 47 p. (MIRA 17:4)

SHUPOV, L.P.; BELONKIZIKO, I.P.

Results of testing a drum vacuum-filter with a removable
belt. Met. i gomorud. prom. no.3:67-69 Hy-Je '65.
(MIRA 18:11)

MARGULIS, V.S., *inzh.*, BELONOVICH, L.P., *inzh.*; TEL'NOV, B.Y., *inzh.*,
tekhn. nauk

Using jet action counterflow-type mills for the grinding of
iron ores. Ger. zhur. no. 226366 B 16%. (4984 18/12)

1. Nauchno-issledovatel'skiy i proyektnyy institut po izucheni-
shcheniyu i aglomeratsii rudy chernykh metallov. Erivoy Bog (for
Margulis, Belonovich). 2. Vsesoyuznyy nauchno-issledovatel'skiy
institut novykh stroitel'nykh materialov Akademii stroitel'stva
i arkhitektury SSSR (for Tel'nov).

The imaginary and actual laws of growth and yield in agricultural plants. 1. I. Belousova. *Sov. Agr.* 1940, No. 1, 22-31; *Herbage Abstracts* 11, No. 3, 82 (1941). -The theories advanced by Liebig, Mitscherlich, Stregou, Filipovskii and others concerning the relations of plants to environmental and nutritional factors and the bearing of the latter in building up the yield are critically reviewed in terms of the new advances made in agrobiology. (A. Williams and Iyevskii) S. Solovchik

ASU SLA METALLURGICAL LITERATURE CLASSIFICATION

BELONOZHKO, I.I.

22555. Belonozhko, I.I. Produktivnost' Mnogoletnikh Prayomesei i
Ikh Vozdeistviye Na Plodorodiye Pochvy. Sov. Agronomiya, 1949, No.7
S. 48-58.

30: Letopis No. 30, 1949

BELONOVSKO, I.I.

Sowing

Period for sowing perennial grass mixtures. Sov. agron. 10 no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.

BELOMOZHKO, I. I.

"Biological Basis for the Date of Sowing of Perennial Grasses in Crop Rotation." Dr Agr Sci, Botanical Inst, Acad Sci USSR, Leningrad, 1953. (RZhbiol, No. 4, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

BELONozhko, Mikhail Arsen'yevich [Bilonozhko, M.A.]; LESIK, Fedor
Lukich [Lesyk, F.L.]. Prinimali uchastiye: ZRIBNYAK, L.Ya.,
kand. ekonom. nauk; LUK'YANOV, V.O., kand. ekonom. nauk;
CHMIR, R.D. [Chmyr, R.D.], red.; GORBUNOVA, N.M. [Horbunova,
N.M.], tekhn. red.

[Plant growing; manual for secondary schools] Roslynnytstvo;
pidruchnyk dlia seredn'oi shkoly. Vyd.2., perer. Kyiv, Ra-
dians'ka shkola, 1961. 202 p. (MIRA 15:7)
(Ukraine--Field crops)
(Ukraine--Pastures and meadows)

1941-1942, 1943-1944
BELONozhko, V.M.

Changes in the quantity of circulating blood, its volume per minute, the resistance of capillaries, the hydrophilous properties of tissues, the vital lung capacity and gases in the blood during various stages of wound sepsis. Medych.zhur. 17:353-363 '47.
(MIRA 11:1)

1. Iz viddilu funktsional'noi terapii (zav. - prof. F.Ya.Primak)
Ukrains'kogo institutu klinichnoi meditsini (direktor - akad.
M.D.Strazhesko)

(BLOOD--EXAMINATION) (WOUNDS)

~~BELONOZHKO, V.M.~~

BELONozhko, V.M., kand.med.nauk; PRIMAK, V.M.; KUMPAN, K.O.; CHUPRINA, K.F.;
~~ZANOZDRA, M.S.~~; VOLKOVA, I.O.

Role of oxygen therapy in controlling a hypotensive syndrome. Medych.
zhur. 21 no.6:44-54 '51. (MIRA 11:1)

1. Z viddilu funktsional'noi terapii (zav. - prof. F.Ya.Primak)
Ukrains'kogo institutu klinichnoi meditsini (direktor - akad.
M.D.Strazhesko)
(HYPOTENSION) (OXYGEN--THERAPEUTIC USE)

BELONSOV, A. P., Assistant

"Investigation of the Influence of Various Factors on the Finish of
Machined Surface of Steel Upon Fine Boring of Holes." Sub 19 Jun 47, Moscow
Automotive Mechanics Inst

Dissertations presented for degrees in science and engineering in Moscow
in 1947

SO: Sum No. 457, 18 Apr 55

BELONSOV, V. D. Cand. Tech. Sci.

Dissertation: "Nonisothermal Flow of Gas in Main Pipes." Moscow Order of the Labor
Red Banner Petroleum Inst imeni Academician Gubkin, 4 Nov 47.

SO: Vechernyaya Moskva, Nov, 1947 (Project #17836)

MEDNIKOV, F.A.; BELOMUCHKIN, P.P.

Ten-year system of spruce tapping in the Tikhvin wood-
chemical establishments. Gidroliz. i lesokhim.prom. 13
no.3:25-26 '60. (MIRA 13:7)

1. Leningradskaya lesotekhnicheskaya akademiya (for Mednikov).
2. Leningradskiy sovnarkhoz (for Belomuchkin).
(Leningrad Economic Region--Tree tapping)

L 11968-66 EWT(d)/EWT(m)/T/EWA(m)-2 IJP(c)
ACC NR: AP8001163 SOURCE CODE: UR/0367/65/002/003/0552/0561

44 55
AUTHOR: Beloozerov, N. N.

44 55
ORG: Institute of Theoretical and Experimental Physics, GKIAE (Institut teoreticheskoy i eksperimental'noy fiziki)

16, 44, 55
TITLE: Solution of equation for the scattering of a neutron by a deuteron at high energies

SOURCE: Yadernaya fizika, v. 2, no. 3, 1965, 552-561

TOPIC TAGS: neutron scattering, deuteron, scattering amplitude

16, 44, 55
ABSTRACT: A solution is obtained for the Skornyakov - Ter-Martirosyan equation at

$$M(p_1, p_2; E) = \frac{1}{2[p_1^2 + p_2^2 + (p_1 p_2) - mE]} + \frac{\lambda}{4\pi^3} \int \frac{M(q, p_1; E)}{p_1^2 + (p_1 q) + q^2 - mE} \frac{d^3 q}{(q^2 - 1/mE)^{1/2}}$$

energies much higher than the deuteron binding energy, i.e., the corresponding equation for the partial amplitudes is solved. The Danilov procedure is used to eliminate the

Card 1/2

L 11968-66

ACC NR: AP6001163

$$M_1(p_1, p_2; E) = Q_1 \left(\frac{p_1^2 + p_2^2 - mE}{p_1 p_2} \right) +$$

$$+ (-1)^{\frac{1}{2}} \frac{\lambda}{\pi} \int_0^{\infty} Q_1 \left(\frac{p_1^2 + q^2 - mE}{p_1 q} \right) \frac{M_1(q, p_2; E)}{(q^2 - i/mE)^{1/2}} dq.$$

indeterminacy of the s-wave. Author thanks K. A. Ter-Martirosyan for the suggested topic and attention to this work. Orig. art. has: 2 figures and 18 formulas.

SUB CODE: 20 / SUBM DATE: 04Feb65

60
Card 2/2

L 33409-66 EWT(1) IJP(c)

ACC NR: AP6015306 (A, N)

SOURCE CODE: UR/0057/66/036/005/0852/0859

AUTHOR: Beloozerov, V.N.

ORG: none

TITLE: Constraint of a superconducting sphere by a system of circular currents

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 5, 1966, 852-859

TOPIC TAGS: axial magnetic field, nonhomogeneous magnetic field, mechanical force, superconductivity

ABSTRACT: The author discusses the forces on a superconducting sphere due to the magnetic field of a system of circular windings. In the first section the sphere is assumed to be small compared with the radii of the windings. The potential energy of the sphere in the magnetic field is then equal to the scalar product of the magnetic moment of the sphere and the magnetic field strength, and is thus proportional to the square of the field strength. It is shown that the superconducting sphere can be supported against gravity by a single horizontal circular winding provided it is neither too heavy nor too light (for a given value of the current in the winding). If the sphere is too light it rises into a region where it is laterally unstable and falls off to the side. An arbitrarily light sphere can be stably supported by a sys-

Card 1/2

UDC: 538.323

L 33409-66

ACC NR: AP6015306

tem of two or more parallel coaxial circular windings, but the "rigidity" (second derivative of the potential energy at the equilibrium position) of such a system cannot be the same in all directions. Equal rigidity in all directions can be achieved by employing three mutually perpendicular systems of two parallel circular windings each. In the last section the author uses equations given by M.L. Levin (ZhTF 34, 395, 1964) to discuss briefly the forces on a superconducting sphere of finite radius due to the magnetic fields of circular windings. In this section account is taken of the changes in the currents in the windings due to the motion of the sphere. The author thanks M.L. Levin for assistance with the work. Orig. art. has: 29 formulas and 4 figures.

SUB CODE: 20/

SUBM DATE: 15Apr65/

ORIG REF: 005/

OTH REF: 002

Card 2/2

ULR

L 21723-66 EWT(1) IJP(c) GG

ACC NR: AP6004871

SOURCE CODE: UR/0057/66/036/001/0003/0006

AUTHOR: Beloozerov, V.N.; Levin, M.L.

ORG: none

TITLE: Method of images in magnetostatic problems involving a spherical superconduc-
tive boundary

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 3-6

TOPIC TAGS: magnetic field, magnetostatics, superconductivity, spheric
geometry, electric current, electronic image, electronic circuit

ABSTRACT: One of the authors has previously shown that the magnetic field produced by a current flowing in a closed circuit every element of which is at the same distance from the center of a superconducting sphere is equal to the sum of the magnetic field produced in the absence of the superconducting sphere by the original current and that produced by a certain image current flowing in a circuit obtained from the original circuit by inversion in the sphere (M.L. Levin, ZhTF, 33, 395, 1963). In the present paper this image technique is generalized to the case in which the elements of the circuit are not all at the same distance from the center of the sphere. In this case the image currents comprise a nonuniform current flowing in the image circuit obtained by inversion in the sphere and radial currents flowing between the center of the sphere

Card 1/2

UDC: 538.12

L 21723-66

ACC NR: AP6004871

and the elements of the image circuit. The total image current is solenoidal. This technique can also be applied to calculate the magnetic field within a spherical cavity with a superconducting wall. In this case the image circuit is outside the spherical cavity and the radial image currents flow between elements of the image circuit and infinity. This technique is illustrated with several simple examples, including calculation of the field of a point magnetic dipole in the presence of a superconducting sphere and the radiation of a magnetic dipole moving at nonrelativistic velocity past a superconducting sphere. Orig. art. has: 17 formulas and 2 figures

SUB CODE: 0920/

SUM DATE: 18Mar65/

ORIG REF: 001/

OTH REF: 000

Card 2/2 *ada*

9(0)

SOV/112-59-2-3739

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2, p 217 (USSR)

AUTHOR: Belopashtsev A. K.

TITLE: Automatic Machine for Manufacturing Wire-Type Trimming Capacitors
(Avtomat dlya izgotovleniya provolochnykh podstroyechnykh kondensatorov)

PERIODICAL: Radiotekhn. proizv., 1957, Nr 10, pp 47-48

ABSTRACT: The capacitor is a small length of PEL-1 wire with a stripped end; a PEL-0.25 wire is wound on the insulated part of the PEL-1 wire and also has a stripped end. The capacitance between the heavier and lighter wires forms a capacitor. The PEL-1 wire is fed into the automatic machine axially and is smeared by a glue which secures the tightly-wound PEL-0.25 wire. After the required length of PEL-0.25 wire has been wound, the pitch of the winding is changed (to 3 mm) and the last part of the wire subject to stripping is wound. After that, the billet is cut off, the tightly wound part is secured in a chuck, and the loosely wound part is subjected to the action of stripping brushes which

Card 1/2

SOV/112-59-2-3739

Automatic Machine for Manufacturing Wire-Type Trimming Capacitors

remove enamel from both the heavier and lighter wires After stripping, the capacitor is pushed out of the chuck. The machine productivity is 2,500 capacitors per hour.

V. T. R.

Card 2/2

BONDARENKO, G.; BELOPAVLIC S.

Urolithiasis in the Autonomous Province of Kosmet and Metohija.
Acta chir. Iugosl. 8 no.1:70-73 '61.

1. Uroloski otsek Opste bolnice u Pristini (Sef dr G.Bondarenko).
(URINARY CALCULI statist)

12100000, 12

VOIADZHIEV, Georgi, Prof.; IARUKOV, Liubomir, d-r.; BELOPITOV, Borislav
d-r.

Considerations on the female pelvis. Izv.med.inst., Sofia 11-12:
689-719 1955.

1. Klinika po akusherstvo i ginekologiya (zav.katedrta: prof.
d-r Georgi Voiadzhiev) pri visshia meditsinski institut
V. Chervenkov-Sofia.

(PELVIMETRY,
analysis of pelvic dimensions)

11.000001

11. ANCHUTSKOV, B. BELCHIKOV, A. A. AND V. V.

'Our Experiences with Methylergonovine as Hemorrhage Investigative in the Placental Period in Obstetrics.'

Sofia, *Sovremennaya Meditsina*, Vol 12, No 11, 1968: pp 18-20.

Abstract[English summary of official detailed clinical data on 127 patients, of whom 50% received USSR-made Methergin (Parlor) and 50% Czech-made methylergonovine (Meth); untreated controls averaged 60% uterine blood loss, Methergin 10% and Czech drug 10%. All of the two preparations also accelerated placental expulsion and reduced uterine spasm, temperature and other indicators in systems. Side effects, none observed, no references.]

Department of Obstetrics and Gynecology (Katedra po akusherstvu i ginekologii) Head (rukovoditel) Prof. IL. GUCHENKO, M. Medical College (VUZ) Vsesoyuznyi nauchnyi institut, Sofia.

1/1

ILIEV, G.; BELOPITOV, B.; KHUBENOV, A.; VASILEV, Z.

Delivery of large and giant fetuses. Akush. ginek. (Sofia)
2 no. 5:25-35 '63.

*

SHTURKALEV, IL.; IARUKOV, L.; BELOPITOV, B.

Apropos of indications for cesarean section and their evolution. Akush. ginek. (Sofia) 3 no.1:1-12 '64

*

BELOPITOV, B.; NISHOV, D.

Transverse presentation; methods for the management and effects on the mother and child. (Data of the Higher Medical Institute Obstetric and Gynecologic Clinic "Maidin Dom" in Sofia). Akush. zhuk. (Sofia) 3 no.4:91-103 '64.

SHITOV, J.; ILIEV, G.; ERELITOV, B.; ATANASOV, D.

Our experience in the mass prevention by medication of hemorrhages during the placental period in a series of 700 deliveries. Akush. ginek. (Sofia) 4 no.3:169-175 '65.

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SUBJECT CLASSIFICATION													CROSS-REFERENCE												
<p>Application of voltage regulating transformers under loads to grid systems. <i>Bucuresti, M. Electricitate, (No. 7) 31-4 (1946) in Russian.</i>—Several methods of voltage regulation in high-voltage transformers are considered, the booster-transformer being regarded as the most suitable. Its economic advantages are shown for the case of a grid system in South Bulgaria. The capital outlay for generation and transmission and for the provision of booster-transformers is analysed in detail. The increase in conductor size is plotted against current density.</p> <p style="text-align: right;">A. L.</p>																									

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Possibilities of increasing wearing resistance of cutting dies.
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AUTHOR: Belopitov, N.R., Chief

SOV/TIS-59-2-2/30

TITLE: Reducing Noise in ATS Talk Circuits

PERIODICAL: Vestnik svyazi, 1959, No 8 pp 7-9 (USSR)

ABSTRACT: This article details the process of depositing a layer of precious metal on the contacts of automatic telephone station (ATS) equipment in order to reduce the noise level in talk circuits, equipment for that purpose, and results obtained. The method was developed at the Nauchno-issledovatel'skiy institut ministerstva transporta i svyazi na Bolyariya (Scientific Research Institute of the Ministry of Transport and Communications of the Bulgarian People's Republic). The author states that contacts in the talk circuits of new ATS equipment are now made of precious metals. However, contacts in ATS equipment in service, not made of precious metals, must be covered with a layer of precious metal in order to reduce noise in the talk circuits. The electric spark method used for this purpose, and described

Card 1/3

Reducing Noise in ATS Talk Circuits

06/23/11: 06-2-2/11

in the article, was originally discovered by V.G. and N.I. Lazarenko in 1943. The author outlines the method, and presents the circuit used (Fig 1). Two instruments developed for the purpose are described and illustrated (Figs 2, 3): the first is an ordinary DSHI-100 dialer with two vibrators, the second, used for manual depositing of a precious metal layer on brushes and relay contacts, was specially constructed. Noise as a function of contact resistance is discussed; silvering of contacts substantially reduced contact resistance and hence, the noise level. Noise was measured with a Neuman (Neyman) recording device. Results are presented graphically (Figs 4, 5). The author states that even better results were obtained with gold. He states also that considering that in an ATS talk circuit with 3 stage dialing there are up to 25 contacts, noise level created by these contacts, after coating them with precious metal, is reduced approximately 100 times. Studies of the microstructure of the silvered contact, the bond between contact metal and coating, and the hard-

Card 2/3

Reducing Noise in ATS Talk Circuits

SOV/111-80-11-17

ness of the silvering were made. Hardness of the silver coating (Table) was found to be 7.5 times greater than that of chemically pure silver. Measurements of the service life of treated contacts was made (described). After 7.1 million operations of a dialer contact resistance remained low. In conclusion, the author notes that the quality of silvered contacts is equal to that of silver contacts, and that the deposited silver layer shows practically no wear. Service life of other ATS equipment can be lengthened by this method: the process described is automatic and the necessary apparatus cheap and simple. Some other conclusions are also presented. There are 2 photographs, 2 graphs, and 1 circuit diagram.

ASSOCIATION:

Nauchno-issledovatel'skiy Institut Elektromekhaniki Respubliki Bolgarii (Scientific Research Institute for Communications of the Bulgarian People's Republic)

Card 3/3

BULGARIA

P. BELOPITOV, V. VASILEV and A. MLADENOVA, City Hospital for Rheumatic Fever of Children (Gradska detska protivorevmaticzna bolnitsa), Medical Director (glaven lekar) P. BELOPITOV; and Scientific Institute for Pediatric Research (Nauchno-izsledovatel'ski institut po pediatriya), Director (direktor) St. KOLAROV, [Sofia.]

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Abstract: Tests with Bulgarian-made benzathine penicillin, dissolved in special penicillin solvent of State Drug Control Institute (Durzhaven kontrolen institut za lekarstvenia sredstva), 6 to 8 ml. required for 1.2 million units as given to each of 8 children with rheumatic fever. Serum concentration tested on days 1-20 post-injection by inhibition of *Sarcina lutea* strain: irregular, only low level remained in only 4 on day 18, none on day 20. Desiderata for ideal long-acting preparation are discussed. Table.

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R. C. MURRAY.

31

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